

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number
WO 2004/006419 A2

(51) International Patent Classification⁷: H02M 5/00 (74) Agent: NOVAGRAAF PATENTS LIMITED; The Crescent, 54 Blossom Street, York YO24 1AP (GB).

(21) International Application Number: PCT/GB2003/002875 (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EB, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 4 July 2003 (04.07.2003) (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English (26) Publication Language: English

(30) Priority Data: 0215736.0 6 July 2002 (06.07.2002) GB

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Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/006419 A2

(54) Title: MONITORING APPARATUS AND METHOD FOR IMPROVING THE ACCURACY AND REPEATABILITY OF ELECTROCHEMICAL CAPACITANCE VOLTAGE (ECV) MEASUREMENTS

(57) Abstract: An apparatus and method for improving the accuracy of Electrochemical Capacitance Voltage (ECV) profiling measurements by alerting the operator to the presence of surface films or gas bubbles during the etching process and by using this in-situ monitoring apparatus to determine the true measurement area at the end of the measurement cycle and using the new value to recalculate the data. By making the area measurement integral to the ECV tool, every sample measurement can be corrected for the true measurement area, leading to improved accuracy and eliminating a large source of error.